

ABSTRACT OF THE DISCLOSURE

The present invention provides a scanning electron microscope that can obtain a high-precision SEM image and width measurement values, without
5 damaging an object to be measured even at a high magnification. This scanning electron microscope irradiates a sample with an electron beam so as to detect secondary electrons released from the sample due to the irradiation. The scanning electron
10 microscope also includes scan generators for detecting the secondary electrons at a frequency depending on a detection magnification for the sample. The present invention also provides a method of measuring a pattern size using the above
15 scanning electron microscope.